AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1.   (Currently Amended) A system that renders data in an industrial automation environment, comprising:

a device analyzer that determines properties, limitations, or software plug-ins associated with a plurality of devices intended for delivery of data; [[and]]

a Human Machine Interface (HMI) an HMI generator that generates code or and/or data for the HMI in accordance with the determined properties of the devices, and delivers the delivers the code or and/or data to the respective devices; and

a processing component that creates one or more multi-dimensional software objects that renders data based at least in part on the properties, limitations, or software plug-ins of the device.

2.   (Currently Amended) The system of claim 1, the device analyzer further comprising a memory or [[and]] a processor.

3.   (Currently Amended) The system of claim 2, the processor utilizes artificial intelligence techniques to properly render the data.

4.   (Currently Amended) The system of claim 3, the processor employs artificial intelligence employed in connection with manipulating a mapping. The system of claim 1, the HMI generator automatically modifies code and/or data associated with an existing HMI for display on a new device for which the HMI was not originally configured, wherein the HMI is modified according to the determined properties of the new device.

5.   (Currently Amended) The system of claim 1, the HMI generator automatically modifies the code or and/or data associated with an existing HMI for display on a new device for which the existing HMI is [[was]] not originally configured, wherein the code or data [[HMI]] is modified according to the determined properties of the new device. The device analyzer of claim 1, wherein artificial intelligence techniques are employed in connection with manipulating a mapping.

6.   (Currently Amended) The system of claim 1, employed in a processing environment including comprising at least one of[[:]] a personal computer, [[;]] a desktop computer, [[;]] a laptop computer, [[;]] a personal digital assistant, [[;]] a hand-held computer, [[;]] a cell phone, or [[; and]] a tablet computer.

7.   (Currently Amended) The system of claim 1, wherein one or more of the device device(s) coupled to the HMI generator is least one of[[:]] a display, [[;]] a data store, or [[; and]] a server.

8.   (Currently Amended) The system of claim 1, the HMI generator further comprising:
        a processing element that facilitates creation of one or more multi-dimensional software objects that render data in multiple dimensions and/or formats at substantially the same time; and
        an input [[a]] component that obtains a common data input for the one or more multi-dimensional software objects.

9.   (Currently Amended) The system of claim 8, the multi-dimensional software object wherein specific data is assigned specific data to a software object.

10.   (Currently Amended) The system of claim 9, the specific data varies at least one of size, [[;]] color, [[;]] translational location, [[;]] rotation of a software object, [[;]] text, [[;]] audio, [[;]] video, [[;]] visibility, [[;]] enable or disable enable/disable state, [[;]] object state, [[;]] object type, [[;]] object text, [[;]] trending zoom level, [[;]] audio volume, [[;]] specification of audio clips, [[;]] specification of video clips, [[; and]] starting, or and/or stopping animation.

11.   (Currently Amended) The system of claim 8, a change ~~wherein changes~~ to the common data input affects ~~affect~~ the ~~one or more~~ multi-dimensional software objects.

12.   (Currently Amended) The system of claim 1, the HMI generator further comprising:

        a correlation component that associates one or more software objects with one or more physical devices; and

        an object generation [[a]] component that builds ~~generates~~ software objects ~~wherein the one or more software objects are~~ associated with data corresponding to the ~~one or more~~ physical devices, the physical devices affecting changes to the software objects and the software objects affecting changes to the physical devices.

13.   (Currently Amended) The system of claim 12, the ~~one or more~~ software objects are imported from an outside source.

14.   (Currently Amended) The system of claim 12, further comprising an interface that selects ~~to facilitate selection of~~ data to associate with the physical devices.

15.   (Currently Amended) The system of claim 12, further comprising an interface that selects ~~to facilitate selection of~~ specific attributes of software objects corresponding to data associated with the physical devices.

16.   (Currently Amended) The system of claim 1, the ~~further comprising:~~ [[a]] processing component [[that]] renders data based at least in part on ~~one or more of~~ a user access data level, a data type, or [[and]] a data state that employs ~~wherein~~ the processing component ~~is employed~~ in an HMI residing in a processing environment.

17.   (Currently Amended) The system of claim 16, further comprising a user-based association between displayed data and at least one of[[:]] a user access level, [[;]] a data type, or [[; and]] a data state.

18.   (Currently Amended) A system that renders data in an industrial automation environment comprising:

a device analyzer that determines properties, limitations, or software plug-ins associated with a plurality of devices intended for delivery of data;

an identification [[a]] component that determines if a [[the]] format or a and/or sub-format of [[the]] data is known to the system; [[and]]

an artificial intelligence component that determines the format of unknown data received by a Human Machine Interface (HMI) the HMI; and

a processing component that process and renders the data in the HMI into [[in]] a suitable format based at least in part on the properties, limitations, or software plug-ins of the device.

19.   (Currently Amended) The system of claim 18, the artificial intelligence component locates and renders a partial data set.

20.   (Currently Amended) The system of claim 18, further comprising a memory which stores previously unknown data types for comparison to compare with future data.

21.   (Currently Amended) The system of claim 18, the HMI renders the data into at least one of text, [[;]] audio, [[;]] video, [[;]] static images, or image(s); and interactive images. image(s).

22.   (Currently Amended) The system of claim 18, the processing component provides providing an error message when data cannot be rendered.

23.   (Currently Amended) The system of claim 18, the processing component further renders wherein data into suitable formats or sub-formats is rendered in a format and/or sub-format compatible with suitable to the display capabilities of a [[the]] device on which the data is to be presented.

24.   (Currently Amended) A method to display data based at least in part on a zoom level, selected by a user comprising:

determining properties, limitations, or software plug-ins associated with a plurality of devices intended for delivery of data;

converting 3-dimensional data into 2-dimensional data (or vice-versa) based at least in part on properties, limitations, or software plug-ins of the device;

displaying the data in a plurality of disparate views; and

presenting displaying respective views associated with a corresponding zoom level.

25.   (Currently Amended) The method of claim 24, further comprising:

presenting data associated with a zoom level chosen by the user; and

suppressing data associated with the [[a]] zoom level chosen by the user.

26.   (Currently Amended) The method of claim 24, further comprising assigning the data or [[and]] the zoom levels.

27.   (Currently Amended) The method of claim 24, further comprising associating allowing the zoom level and the data to be associated in a non-linear relationship.

28.   (Currently Amended) The method of claim 24, further comprising utilizing [[an]] artificial intelligence to infer component capable of inferring a default zoom level based on a user preference.

29.   (Currently Amended) A system that <u>recognizes or creates</u> ~~facilitates recognizing and/or creating~~ a software object representing a physical device, comprising:

a software object generator that determines properties<u>, limitations, or software plug-ins</u> associated with a plurality of devices intended for creation of the software objects; and

<u>a Human Machine Interface (HMI)</u> ~~an HMI~~ generator that formats [[the]] data ~~respectively in accordance with the determined properties~~ <u>based at least in part on the properties, limitations, or software plug-ins</u> of the devices.

30.   (Currently Amended) The system of claim 29<u>,</u> further comprising an artificial intelligence component <u>that recognizes</u> ~~utilized to recognize~~ a new device added to the system.

31.   (Currently Amended) The system of claim 29<u>,</u> further comprising <u>an identification component that recognizes</u> ~~recognizing~~ substantially all the components coupled to the system.

32.   (Currently Amended) The system of claim 29<u>,</u> further comprising a mapping <u>component that provides</u> ~~element to provide~~ connectivity to the physical devices.

33.   (Currently Amended) A method <u>for</u> ~~that facilitates~~ rendering [[of]] data in an industrial automation environment, comprising:

determining formatting requirements<u>, properties, limitations, or software plug-ins</u> associated with a plurality of devices intended for delivery of data; [[and]]

formatting the data <u>based at least in part on the properties, limitations, or software plug-ins</u> ~~respectively in accordance with the determined formatting requirements~~ of the devices; and

delivering the formatted data to the respective devices.

34.   (Currently Amended) The method of claim 33, further comprising reformatting data associated with an existing <u>Human Machine Interface (HMI)</u> [[HMI]] for delivery to a newly detected device based <u>at least in part</u> on the determined formatting requirements of the newly detected device.

35.   (Currently Amended) A method for ~~that facilitates~~ rendering [[of]] data in an industrial automation environment, comprising:

    receiving data from a physical device to <u>a Human Machine Interface (HMI);</u> ~~an HMI; and~~

    <u>ascertaining formatting requirements, properties, limitations, or software plug-ins associated with the physical device;</u>

    comparing ~~the data~~ format <u>of the data</u> to data formats known to the HMI; [[and]]

    determining the format of unknown data received by the HMI; and

    ~~processing; and~~

    rendering the data in the HMI <u>into</u> [[in]] a suitable format <u>based at least in part on the properties, limitations, or software plug-ins of the device.</u>

36.   (Currently Amended) A method for ~~that facilitates~~ recognizing <u>or</u> ~~and/or~~ creating at least one software object representing at least one physical device, comprising:

    <u>mapping data path information to data delivered to the physical device to enable communication between the data and a Human Machine Interface (HMI);</u>

    determining <u>Input/Output (I/O)</u> ~~the I/O~~ and communications protocol of the ~~at least one~~ physical device; [[and]]

    formatting [[the]] data ~~respectively~~ in accordance with the determined properties of the devices; and

    creating a software object <u>that represents</u> ~~representing~~ the ~~device with~~ I/O [[to]] interface with the physical device.

37.   (Currently Amended) A method for ~~that facilitates~~ rendering [[of]] data in an industrial automation environment, comprising:

    means <u>for determining</u> ~~to determine~~ properties, <u>limitations, or software plug-ins</u> associated with a plurality of devices intended for delivery of data; [[and]]

    means <u>for formatting</u> ~~to format the~~ data <u>based at least in part on the properties, limitations, or software plug-ins</u> ~~respectively in accordance with the determined properties~~ of the devices; and

    means <u>for delivering</u> ~~to deliver~~ the formatted data to the respective devices.

38.   (Currently Amended) A method for that facilitates rendering [[of]] data in an industrial automation environment comprising:

means for ascertaining formatting requirements, properties, limitations, or software plug-ins associated with a physical device intended for delivery of data;

means for determining whether to determine if a format of [[the]] data is known to the system; and

means for determining to determine the format of unknown data received by a Human Machine Interface (HMI) the HMI; and

means for rendering to process and render the data in the HMI into [[in]] a suitable format based at least in part on the properties, limitations, or software plug-ins of the device.

39.   (Currently Amended) A method for that facilitates recognizing or and/or creating at least one software object representing at least one physical device, comprising:

means for mapping data path information to data delivered to the device to enable communication between the data and a Human Machine Interface (HMI);

means for generating to generate at least one software object by determining properties associated with a plurality of at least one of the devices intended for creation of the at least one of the software objects; [[and]]

means for formatting to format the data respectively in accordance with the determined properties of the devices; and

means for creating the to create at least one or more software object that represents the objects representing the at least one device with Input/Output (I/O) I/O to interface with the at least one physical device.

40.   (Currently Amended) A method to display data based at least in part on a zoom level, ~~selected by a user~~ comprising:

means for determining properties, limitations, or software plug-ins associated with a plurality of devices intended for delivery of data;

means for presenting 3-dimensional data as 2-dimensional data (or vice-versa) based at least in part on properties, limitations, or software plug-ins of the device;

means for displaying ~~to display~~ data in a plurality of disparate views; and

means for associating ~~to display~~ respective views ~~associated~~ with a corresponding zoom level.